

JUN 11 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

DARREL CHERRY
and JAMES CLOUGH

HP Docket No. 10016811-1

Serial No. : 10/074,793

Examiner J. Pokrzywa

Filed : February 11, 2002

Group Art Unit 2625

For : SYSTEM AND METHOD FOR
AUTHORIZING PRINTING SERVICES

Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

DECLARATION UNDER § 1.131

We declare as follows:

1. We are inventors who, on February 11, 2002, filed the above-identified application. At the time of such invention, we were employees of Hewlett-Packard Development Company, L.P.

2. Prior to October 26, 2001, the publication date of Japanese Publication No. JP02001298779A assigned to Mitsubishi Electric Corp., we conceived of our invention, and diligently pursued reducing our invention to practice, as demonstrated by Exhibit 1, as discussed below.

3. Exhibit 1 is an HP Invention Disclosure demonstrating a system comprising a communications link, a monitoring device attached to the communications link, a computer attached to the communications link, and an agent installed on the communications link, configured to provide an interface between the computer and the communications link, wherein the agent receives an authorization

Page 1 - DECLARATION UNDER § 1.131
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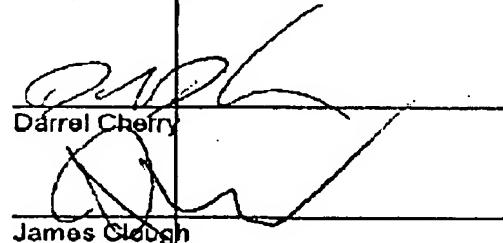
code from the monitoring device, and assigns the authorization code to a print job rendered with the computer, wherein the monitoring device is configured to receive the print job and verify whether the authorization code is valid.

4. As indicated by the attached Exhibit 1, the conception of the invention of the referenced patent application was complete prior to October 26, 2001. All acts set forth herein and/or relied upon for the purpose of establishing invention prior to October 26, 2001 were carried out in the United States.

5. Following our conception prior to October 26, 2001, we diligently worked toward creation of a commercial implementation of our invention.

6. We declare that all statements made herein of our knowledge are true and all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of the United States Code. We understand that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: 6/8/2007



Darrel Cherry
James Clebgh

Date: 6/8/2007

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H INVENTION DISCLOSUREPAGE ONE OF 3PDNO 10016811DATE RCVD 5/17/01

Instructions: The information contained in this document is COMPANY CONFIDENTIAL and may not be disclosed to others without prior authorization. Submit this disclosure to the HP Legal Department as soon as possible. No patent protection is possible until a patent application is authorized, prepared, and submitted to the Government.

Descriptive Title of Invention:

Method of public printing authorization through dynamic agent code retrieval

Name of Project:

N/A

Product Name or Number:

N/A

Description of Invention: Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).

- A. Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).
- B. Problems solved by the invention.
- C. Advantages of the invention over what has been done before.
- D. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

Signature of Inventor(s): Pursuant to my (our) employment agreement, I (we) submit this disclosure on this date: [5/1/2001].

Darrel Cherry

Employee No. Name

Signature

Telnet

Mailstop

Entity & Lab Name

James Clough

Employee No. Name

Signature

Telnet

Mailstop

Entity & Lab Name

Employee No. Name

Signature

Telnet

Mailstop

Entity & Lab Name

Employee No. Name

Signature

Telnet

Mailstop

Entity & Lab Name

(If more than four inventors, include additional information on another copy of this form and attach to this document)

Exhibit 1

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| | | | |
|---|--|------------------------------------|---------------------------|
| H INVENTION DISCLOSURE | | COMPANY CONFIDENTIAL | PAGE <u>2</u> OF <u>3</u> |
| Signature of Witness(es): (Please try to obtain the signature of the person(s) to whom invention was first disclosed.) The invention was first explained to, and understood by, me (us) on this date: [] | | | |
| Full Name <i>Catherine R Markle</i> | Signature <i>Catherine R Markle</i> | Date of Signature <i>5/1/01</i> | |
| Full Name [REDACTED] | Signature [REDACTED] | Date of Signature [REDACTED] | |

Inventor & Home Address Information: (If more than four inventors, include add'l. information on a copy of this form & attach to this document)

| | |
|--|------------|
| Inventor's Full Name Darrel Cherry | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |

| | |
|---|------------|
| Inventor's Full Name James Clough | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |

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|--|---------------------------|-------|-----|
| Inventor's Full Name | | | |
| Street | | | |
| City | State | Zip | |
| Do you have a Residential P.O. Address? P.O. BOX No | City | State | Zip |
| Greeted as (nickname, middle name, etc.) | Citizenship USA | | |

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|--|---------------------------|-------|-----|
| Inventor's Full Name | | | |
| Street | | | |
| City | State | Zip | |
| Do you have a Residential P.O. Address? P.O. BOX No | City | State | Zip |
| Greeted as (nickname, middle name, etc.) | Citizenship USA | | |

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Description of Invention: Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).

A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

User is at a public location (such as a hotel) and has signed up for a printing service. This printing service needs some way to authenticate the print jobs that come through the web from a web based print job submittal. The printing system on the users laptop is running an agent that at bootup sends a network request (such as an SLP packet) that it is the HP Public Printing System that has come online. The web print server on the Intranet of the public facility sees this request and establishes a secure link with the client (through SSL, Diffie-Helman, etc.) and gives this client a temporary authorization code for usage (expiration could be 1 day, 1 week, or 1 hour). The client then puts this authorization code in the header of every print request that uses this printing system. When a print job is received by the web print server, it checks this authorization code and allows printing only if it is valid.

If there is no response, the agent can use any common mechanism for retrying. These can be from periodic polling to listening for any network traffic to appear.

B. Advantages of the invention over what has been done before.

This allows the client to print in the secure public facility while VPNed (Virtual Private Network) into their enterprise. Since the client is logically behind the enterprise firewall, the print jobs will come to the public facility over the open internet.

Using the authentication code can also provide flexibility in meaning - premium vs. regular services, etc. This invention protects the public facility from unauthorized print jobs or attacks.

This invention also prevents users of the public facility from printing to other unauthorized printers (such as another hotel room) and allows the user to be in a different room each day and get the proper authorization code for using that room printer.

C. Problems solved by the invention.

When the client is VPNed into their enterprise, they cannot contact devices inside the public facilities Intranet. This invention provides a way for the client to get an authorization code before they use their VPN client.

D. Prior solutions and their disadvantages(if available, attach copies of product literature, technical articles, patents, etc.).

Let any print job come through - high security risk

Use hard to guess queue names for printing - some security but could be defeated without a lot of effort.
Digital Certificates - allows user print authorization, but cannot restrict a user on a recurring basis without having them re-register or interact with the system manually.